Beetalk June 2020

General info and news about bees

Hello and welcome.

Beetalk is a compilation of news from across the bee keeping word.

Its not affiliated to any beekeeping group so you wont get things like the next meeting and what we are doing and such like.

We hope that the articles provided will be useful to anyone interested in the a rewarding hobby and in some way we also hope that you may gain some pleasure in reading some of the article that are included.

Also we intend to include articles that may be helpful to anyone new to this wonderful hobby.

Being based in Lancashire it would be great for any contributions from Beekeepers from the county. But as stated above, please nothing about your association or group.

Hope you enjoy. And to everyone of our readers. Have a great Christmas and all the best wishes for the coming year, both in health, wealth and happiness, and may your beekeeping year be a great one.

Editor

If you have any articles that you think may be useful to have included in Beetalk.

Please e-mail them to the editor

at

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Wasps

'BeeBase' has sent out a 'wasp warning' because many beekeepers were reporting the presence of large numbers of wasps in apiaries and around their bee hives. This was expected because the warmer than usual spring saw the rapid build-up of our colonies resulting in early and prolific swarming.

Wasps being members of the hymenoptera family, which encompasses bees, wasps and ants, should also have done well! Why? The warm weather has meant a good supply of pollen & nectar for our bees but also caterpillars, and other 'creepies', which wasps chew-up, regurgitate and feed to their larvae. Bees evolved from wasp by becoming vegetarian and used pollen as a protein source instead of insect juices.

Why are wasps a pest to bees and picnickers in the late summer?

A bee colony is perennial, while a wasp's is annual, which means that in late summer new virgin queen wasps and drones are produced to mate. The drones die and the fertile queen wasp (or hornet- just a big wasp) hibernates (often under the roof of a hive) to over winter and found a new colony in the spring.

The old queen left behind will lay less and les, and eventually dies, which means that just like in a bee colony with no queen, the colony's organisation and purpose is lost. One of the factors that keep the worker wasps collecting insects to chew up, is that when it is fed, a wasp grub re-wards it with a drop of sugary liquid. When the old queen is failing she lays less and less eggs, so there are fewer grubs to give the worker wasps their 'sugary fix'. What do they do? Go in search of jam butties or honey.

The wasps will smell the honey and home into the hive where they will try to gain entry. A strong colony will prevent their entry and kill any persistent ones but at a price! Workers bees will sacrifice their lives for the colony's survival but a strong colony should be able to fend off an attack. However, if it continues, then the defenders weaken due to the loss of guard bees and there comes a point where the colony gives up and the wasps get 'free' entry.

Once this happens the colony is doomed and the brood, honey and bees will be carted off!

So what can we do?

1. Keep strong and healthy colonies.
2. Do not spill honey or syrup and keep the opening and so exposure of combs to the minimum.
3. Reduce the hive entrance to make it easier for the bees to defend the colony. With severe problems reduce the entrance to a single bee-way. A small tube entrance can be easier for bees to defend. Having a floor to your hive with a devious entrance route is said to help. Some dispense with the normal entrance and have an 'up and over' one under the floor. Others place a piece of glass in front of the hives entrance which the bees are able to circumvent but the wasps try to go through!
4. BeeBase suggests closing open mesh floors with the floor insert. I assume that this is to reduce the 'area of honey odour' which attracts the wasps. However, several Beekeepers testify to the fact that the wasps get 'confused' and try to enter through the direct route—the mesh, whilst ignoring the real entrance.
5. If colonies are weak/under strength, but healthy, then unite them so they can fight off the attackers.

6. Controlling wasp nests around your apiaries by destroying nests in the spring and summer. This is clearly a good method of reducing the overall wasp population and reducing robbing problems in the autumn. Wasps do have a place in nature and destruction of wasp colonies on a wide scale will be disadvantageous to the environment, especially if you are a gardener, as it has been suggested that a single wasp nest will catch 5 metric tons of insects through the course of the summer!
7. Trapping wasps in the apiary. Placing wasp traps such as jars/bottles containing a wasp attracting mixture will help. Wasp will tend to go to these traps as an easier option and drown. There are commercial traps available in garden centres and also one called Wasp- Bane and waspinator (maybe a new acting part for Arnold now the Governorships is over!), which may be more effective and easier to use.

A Simple Wasp Trap

Take a plastic pop bottle and cut off the top third. Then invert it and placed into the lower portion, which is baited with a wasp irresistible mixture. This works because the wasps are attracted by the bait odour and enter/fall into the trap but will find it difficult, but not I I impossible to find the small entrance. Just like a lobster pot.

Mixtures

Bait mixture are like many things in beekeeping – every person you talk to has their favourite brew! However, the following pointers might help you decide on your brew:

. Never use honey unless you want to catch bees.

. Add a watery mixture of vinegar, sugar and salt. The wasps are attracted to the sweet and sour scent yet bees don't seem to be attracted by this sour mixture.

. Over ripe fruit seems to attract wasps – they like my apples!

. Mix 2 level tablespoons of Whiskas "Sardine and Tuna" cat food into 200ml of warm water and pour into the wasp trap. (You may need to spoon larger chunks of cat food into the wasp trap).

. You can even replace the solution of water with mashed grapes, sugar and lemon juice, sugar and water, soda, vodka and orange, wine, maple syrup and water, etc.

. I found a use for lager – add a dash to simulate fermentation.

♦ Add a dash of washing liquid as this causes the wasp to sink and drowned by reducing the surface tension.

Tips

Keep the traps out of the rain as it will quickly fill with rainwater.

. Hang the wasp trap in a tree or shrub with the base of the trap well clear of vegetation.

. Locate traps well away from your hives otherwise you will attract more wasps to them.

Place on trap upwind and one downwind of you hives at least 5 metres away. Empty them regularly as they fill up surprisingly quickly. Take care that they are all dead!

The down-side of wasp traps is they also attracts and traps beneficial insects such as lacewing and hoverflies which are a natural pest control of aphids.

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CLEARING SUPERS, USING PORTER BEE ESCAPES

The Porter Bee Escape was invented in 1891 by Edward Porter, and is a very effective method of removing bees from a super if used correctly.

Correctly means using a minimum of 2 escapes in a crown board the correct way up most have top written on them - if not, fit it with the single hole on top! Additionally the spring must be adjusted so there is a 3mm gap between each pair of springs.

To use the board you must provide enough space for the bees to evacuate to so it is no good just placing the clearer board on top of the brood box. Any colony that has collected a super full of honey will be strong and populous.

You must add another super below the clearer board for the bee to collect and cluster in - this must obviously not be a full super. Effective precautions must be taken to ensure the super is bee tight, (*so that robber bees cannot get in and pinch all the honey! Ed)* so place another crown board on top (sealing off any feeder holes) and use gaffer or masking tape to cover any bee sized gaps. Do not rely on just a roof as they often have faulty ventilators and/or fit loosely. The board works best on a warm day when there is a flow on and most of the bees

will clear in 24 hours; any straggler can be shaken out.

Sometimes if the weather is poor they may be reluctant to leave the super but before you blame the weather, as all 'Englishmen' do, check that there is no brood in the super.

Bees will not desert their young and many times I have found supers still full of bees because of a faulty queen excluder allowing the queen access to the super(s). I always now (well when not in a rush!) check the centre two frames in the first super for brood – finding brood needs other actions not relevant to this article. An additional problem is that some brood may be drone brood and drones being bigger will block the escape springs.

How many boards do I need? Well in my experience placing a pile of supers over a single clearer board will not work, so if you have four supers to clear place TWO empty supers below a clearer board topped with the first TWO supers to be cleared. Then add another clearer board with the other TWO supers on top before sealing the pile. If you have three supers to clear the order is clearer, ONE super, clearer, TWO supers and a sealed crown board. Do not try to clear more than four supers and it is better to just clear them in pairs. Clearing multiple supers only works in warm weather with a good flow on so be warned!

There are other clearer boards which work equally well. That is to say, that like Porter bee escapes, sometimes they work, sometimes they don't! The Canadian and New Zealand clearer boards have access holes in the top, from the super, which lead the bees to exit holes at the sides of the board underneath, directly into the brood box. There is no physical barrier to prevent the bees returning to the super, they are just not likely to do so very readily. There is also a circular plate with six exit holes which can be attached to the underside of the crown board, which works in the same way. These are better if you know there are drones in the supers, as they are wide enough to accommodate them. The same precautions need to taken as outlined above. Ed.

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BEGINNER'S BIT-PREPARING FOR WINTER .

It always seems a little sad that just when summer is in full swing, we must turn our thoughts to colder times ahead. If this is your first winter be particularly careful to prepare your colony well. Several issues need to be considered:

1. Varroa and other pests and diseases.
2. Colony strength and condition.
3. The hive.
4. Honey stores.

Varroa physically damages the honeybee larvae and adults in two ways-by feeding on the bee's haemolymph and in the process, vectoring virus diseases. It is these viruses that cause many colony deaths, especially over the winter.

Bees hatched in late summer and early autumn are the ones that will carry the colony through to the next spring. They slightly different physiologically to spring born bees and are known as 'winter bees'. They can live for six months as opposed to the six weeks of the hard working spring bees.

Many viruses have the effect of shortening the life of the bees, so if the winter bees are affected they will die off faster than they can be replaced. The colony may then dwindle in size until it is no longer viable.

'Traditional' timing for varroa treatment is in the autumn, maybe as late as October, but it makes much more sense to treat earlier, in August and so have the winter bees hatching into a relatively varroa-free environment. This way the danger of virus-vectoring is greatly reduced.

What to use?

Bayvarol and Apistan strips, based on pyrethroids, used to be the solution, but varroa have largely become resistant to them. The remaining treatments, Apiguard and Miteaway, based on thymol and formic acid respectively, rely on warm ambient temperatures to be effective.

This is another reason for treating early. Oxalic acid cannot be used as part of winter preparation as it does not kill varroa in the brood combs, only phoretic mites. However it is well worth considering treating with it in December when the hive is broodless. (there will be a demonstration of its use at Claro bees, in December) The snag of course, is that many colonies will still have honey supers on, and these are meant to be removed during treatment, if the honey is for human consumption. Residues of most substances used to treat varroa will end up in either the honey or the wax, although they are not necessarily harmful to the health of bees or humans.

Other diseases.

Give your bees a health check and final inspection at the end of the summer. If you know what healthy brood looks like, you should be able to recognise anything different, even if

you are not sure what it is. If you are worried, contact an experienced beekeeper or the Bee Inspector if you suspect foulbrood.

Brown staining in or on the hive could indicate nosema, which is becoming more common. Send a sample of bees to the Association microscopist for free analysis. Older bees are best for a sample. Put an entrance block in the hive while the bees are flying. When they are clustered on the front of the hive, put a large, open, empty matchbox over them and gently slide it shut. Put the box in the freezer to humanely kill the bees, and then send immediately to the microscopist.

If nosema is diagnosed, the colony can be treated with Fumidil B in their autumn feed.

Pests.

All manner of wildlife can be found around beehives, but the most troublesome pests are wasps, mice and other bees. Wasps start to be a nuisance in August, as their colony breaks down and the adult wasps are unemployed and looking for the sugary treats formerly excreted by the wasp larvae. Once they have targeted a hive, even a strong colony has difficulty defending itself, and a weak colony can be wiped out by wasps stealing the honey and killing the legitimate owners. You can try reducing the entrance to one beespace, or piling grass loosely in front of it, or leaning a sheet of glass against the entrance, but you may have to move the colony away if the wasps are really bad.

Robbing by other honeybees, from your own or someone else's colonies, is also a serious problem once it has started. Again, reduce entrances to make them defendable, but the colony may have to be moved.

Later in the autumn, around October, mice start to look for winter quarters, and a snug beehive is ideal. Although rarely destroying a colony, mice can make a terrible mess of the comb and frames. To prevent them entering, fit a mouseguard over the entrance in October, but first make sure there isn't a mouse inside! If you suspect rats live nearby, put something more heavy duty around the entrance and covering any exposed wooden edges they could get their teeth into. Rats can completely destroy a colony-comb, frames, woodwork-whilst the bees are too torpid to defend themselves.

Woodpeckers can also damage hive woodwork, but are deterred by wire netting wrapped around the hive.

2. Colony Strength.

A beehive will keep out the wind and rain, but the temperatures inside it is the same as that outside, no matter how cold, and this is as it should be. The bees provide their own insulation by clustering together. A tightly packed layer of bees on the outside of the cluster keeps in the heat generated by the inner bees shivering-they eat just enough honey to provide the energy for this, perhaps a pound a week. The bigger the cluster the better its insulating powers. (Apparently, though, there is an optimum cluster size and very, very big is not better than just right.) As bees die from age or disease a small cluster may shrink until it cannot keep in enough heat, no matter how many stores they have. It is better to send one strong colony into winter than two weak ones-unite if you have to. The other important issue is the age and vitality of the queen. A one or two year old queen who is laying well, should go through the winter alright. A three year old may become a drone layer-but she may also have a supersedure daughter to go through winter with her. In a poor mating year, a new queen laying a lot of drone eggs should be replaced before winter, as a colony with a drone laying queen is doomed.

3. The Hive.

It is damp, not cold, that kills bees. Make sure your hive is absolutely watertight with no knotholes, rotten wood or rusty patches. The bees will propolise up any small cracks inside, so don't separate the hive parts unless it is essential. Open mesh floors let in sufficient ventilation, but keep them well raised up off wet grass. A hefty stone on the roof helps if it is windy, and a WBC hive may need its roof tying down. The double walled WBC hive does give extra protection in an exposed apiary site.

4. Winter Stores.

It is vital that the bees have adequate honey to see them through to the next spring. Relatively little is used in early winter, but as soon as brood rearing starts, maybe in January, consumption of honey rises quickly.

An average colony needs about 40lbs of honey to over winter. It is best if the bees' own honey can be left with them-they worked hard enough for it! Some years though, they simply don't produce enough and if there is less than this available to the bees they must be fed sugar syrup.

Assessing stores.

In early September go through the frames and assess the weight of honey in them. A good deep frame, full on both side, holds about 5lbs honey, a shallow frame about 2lbs. Work out the equivalent weight of each arch of honey on the brood frames. Add all the weights together to reach the total amount of honey in the hive.

Alternatively, weigh each side of the hive, using luggage scales or a spring balance. Add the two weights together. Subtract the actual weight of the hive plus bees and you arrive at the weight of the stores.

A single deep brood box hive weighs about 30lbs.
A double deep brood box hive weighs about 42lbs.
A deep brood box plus a shallow box (super) weighs about40lbs.
These weights include the roof, frames and bees.
Example: The right hand side of a single brood box hive weighs 26lbs, the left side weighs 32bs. Total, 58lbs. Subtract the weight of the hive itself (30lbs) and you are left with 28lbs. This is the weight of the stores in the hive. You will have to feed 12lbs of sugar as syrup to attain 40lbs stores.

Hefting.

This means feeling the weight of the hive manually. This is not recommended for beginners, as you need considerable experience to know what the correct weight feels like. However, once you have a good estimation of the weight of the hive, heft it to get a feel for that weight.Suffice it to say that a double brood hive with enough winter stores is almost impossible to lift.

Feeding.

Having worked out how much sugar your bees need, you must now feed. Only use **white, granulated sugar**, as brown varieties are unsuitable and the bees probably won't eat them.

Autumn feeding is given as 'thick' or 'strong' sugar syrup. This uses the least amount of water that will dissolve the sugar completely. This is so that the bees can 'ripen' it as quickly as possible and turn it into ' Tate and Lyle' honey.

It works out as about 2Kg sugar to 1 litre water. This amount makes about 2 litres of syrup and fills a rapid feeder. Despite what some books say, 1lb sugar to 1 pint of water is a thinner syrup and will take longer to process.

You can also put the required amount of sugar in a container, mark the level, and fill to there or a little higher with water. It is important that the sugar is dissolved completely, and boiling water can be used, but never boil the actual syrup.

Feeders.

'Contact feeders' are a container with a mesh insert or very small holes in the lid. It is upended over the feed hole in the crown-board, and the bees suck the syrup through the mesh. They are the best to use in cold weather as the bees do not have to move to acœss them. The largest size holds a gallon of syrup. Fill them right up with syrup and upend them over a bucket or similar, as syrup always runs out until a vacuum is achieved, and you don't want to flood the hive or spill syrup around the apiary. It is tricky to see if the syrup has all been taken as you can't see through the container. An eke is needed to support the roof.

'Rapid Feeders'

The bees have to go up through an access point and then down to reach the syrup, which they are reluctant to do in cold weather. The commonest rapid feeder holds half a gallon and also needs an eke. Larger sizes, Miller, Ashforth and Jumbo rapid, fit the hive top and hold up to two gallons of syrup. They are easy to use and it is simple to see if the feeder needs refilling-just lift the lid.

'Frame Feeders.'

The same dimensions as a deep frame and fit inside the hive. These are designed for a hive that cannot be fitted with a feeder for any reason and are not really suitable for autumn feeding as they hold so little syrup.

Summary.

If you take these precautions and send a strong colony of healthy, well-fed bees with a decent queen, into winter, you will have done all you can to ensure their survival. Your bees should have as good a chance as anyone else's of building up quickly once spring arrives. Then, of course, you will have swarming to worry about, but that is another Story!

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BEES FOR DEVELOPMENT.

Angie Schofield and Chris Balmforth, have co-operated in designing and producing a set of 6 designs of beekeeping themes on bone china mugs.

They have most generously decided that all the profits from the sale of these mugs should go to our favourite charity, Bees for Development.

The Sexton Beetle

The Sexton Beetle or Burying Beetle gets its name from the fact that the adults bury the corpses of small mammals and birds to feed their larvae. They fly well and are said to be able to scent a dead body up to two miles away. When the the burial is complete – a process which can take up to eight hours – the adults strip off the fur or feathers. As they do this they coat the carcass with secretions which slow the decay processes and prevent the odour from attracting other animals.

The female then lays the eggs in the soil nearby where they hatch after a few days. The larvae are able to feed on their own, but to speed their development the parents digest the flesh and regurgitate the liquidized food. The adult makes a chirping sound, and the small larvae lift their heads and open their mouths. If there are too many larvae for the size of the carcass the parents may reduce the number to suit.

These beetles are frequently infested by tiny reddish-brown gamasid mites *(Gamasus species, see picture)*. These mites cluster between the body segments, under the wing-cases and anywhere else that the beetle cannot easily reach with its legs to dislodge them.

I found the beetle fascinating, but, for some reason, felt a bit 'queasy' about the mites. Although the beetle appeared to be troubled by the mites this is a mutually beneficialarrangement.

The mites use the Sexton Beetle to travel from location to location, a phenomenon known as phoresy, in order to take advantage of flight to access a new food source.

The Mites feed on carrion fly eggs and maggots, so phoresy is mutually advantageous to the Mites and the Burying Beetles. The Mites get a food source and the Burying Beetle benefits because more rotting flesh is available to its young.

INBREEDING

Years ago THE front cover of the September 2011 issue of the Scottish Beekeeper certainly aroused my interest, and, since it was taken at the SASA Bee Health Day, which I unfortunately could not attend, it must have stimulated comment.

The brood comb featured in the picture is far from 'normal' as was probably noted. I'd be interested in the diagnosis of the reasons for the classic 'pepper pot' brood condition.

Was the colony infected by a brood disease?I assume not since it was being handled in 'non aseptic' conditions. Was the colony grossly infested with Varroa which could explain the pepper pot appearance?

I am inclined to believe that the condition of the comb is due primarily to inbreeding; to which some so called leading Scottish apicultural 'experts' are still in denial. Inbreeding is now widespread in Scotland's honeybees. A condition first drawn to the attention of folk at a meeting of the Glasgow and District Beekeepers' Association some 10 years ago - Ian Craig was in that company and will verify that this postulation was greeted with astonishment and disbelief at the time. The incidence of inbreeding has been covertly increasing steadily over the intervening years, such that most beekeepers now accept the pepper pot condition in its varying degrees as the norm. This inbreeding observation commented on 10 years ago was the dynamic for the first attempt at safeguarding the diminishing Scottish honeybee gene pool made by the Clyde Area Beekeepers' Association Apiary project in 2006 - 2010. Since that time many observant, progressive beekeepers have initiated measures to safeguard their colonies against inbreeding by moving their 'to be mated' virgin queens away from the home apiaries.

The root cause of the present inbreeding situation is historical and deeply ingrained; the Agricultural College Advisers in the good old days, pre–Varroa, all steadfastly advocated 'breeding from the best'. This doctrine became embedded in the culture. At that time this seemed to be a good procedure – there were hundreds of beekeepers on the ground during this period. However the advent of Varroa and its epidemic increase was about to dramatically alter beekeeping in Scotland, and elsewhere for that matter.

Beekeeper numbers dropped steadily as Varroa took its toll. Honeybee colonies followed suit, even today it is no easy task to obtain honeybee colonies at sensible prices, despite 'would be' beekeepers increasing in number. The beekeepers surviving Varroa had lessons to learn and the error of breeding from the best has still not been grasped by a number of dogmatists.

The steady loss of managed honeybee colonies was bad but the most significant factor, which was not even on the radar, to be lost from the 'breeding from the best' scenario was the dramatic crash of the feral colonies – in tree hollows, down chimneys, ensconced in lofts all over Scotland – these ferals had for years made a significant 'unsung' contribution to maintaining a 'sweet' gene pool.

Most beekeepers of that generation did not even consider the contribution of the feral colonies at that time. However, later, the so called experts not merely in Scotland but also in mainland Europe at the time before the ferals collapsed and more recently in New Zealand, suddenly decided that the ferals constituted a constant source of Varroa reinfestation and decisions were made to embark on an abortive course of action to destroy all of the feral honeybee colonies. An act of dire biological vandalism since thoughtful beekeepers realised that the ferals were the Great Hope for Varroa tolerance due to Natural Selection.

The Primorski Bee in later years proved the eminent sense shown by the thoughtful beekeeper!

The Kiwis were ultimately forced to accept the futility of their extermination plan and learn to live with the mite, like the rest of us!

Despite a strong school of thought among the leading apicultural scientists in Europe in the 1990s, that a Varroa tolerant honeybee was a pipe dream, virtually every beekeeping research facility worldwide is now spending a lot of time and hard cash on breeding honeybees for Varroa tolerance. In fact,

Professor Kaspar Bienefeld, in Germany now has a honeybee selective breeding program in place from which beekeepers can purchase queen bees for particular characteristics including Varroa tolerance.

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Book Review

Haynes Bee Manual

The complete step-by-step guide to keeping bees

Authors: Claire and Adrian Waring

Foreword: Bill Turnbull (169pp)

I ONCE spent a long afternoon on my back, under my Austin Mini getting gradually more and more frustrated and covered in oil. What I was trying to achieve escapes me, but it had a lot to do with spanners and wires and banging my knuckles and cursing. I quickly worked out that I wasn't cut out for tinkering with cars, even though I had invested in a 'Haynes Car Manual'. I had spent various evenings marvelling at the diagrams of carburettors, axles, steering columns etc, and grown quite excited about donning my overalls and getting my hands dirty. However, even though my handiwork, or lack of it, was faulty, no blame could be placed at the door of Haynes' publishing house. In fact, quite the opposite, they had whetted my appetite and fired my imagination.

Fast-forward a few decades and cars have become so complicated hardly anyone even considers fixing them without the aid of a qualified mechanic.

So, Haynes have diversified and brought us this excellent book **Haynes Bee Manual** which really is excellent. Although aimed at the beginner, the advice is clear, straightforward and precisely indexed. Packed with clear full-colour photographs on every page, I feel sure almost every beekeeper would benefit from it, if simply just using it as a quick reference guide.

It covers everything a new beekeeper needs to know and the photos make everything very clear and understandable. It is also very well written – not elaborate or over-technical. As an ad man once said, *"it does everything it says on the tin"*.

The authors are well-known to beekeepers. Claire edits Bee Craft magazine and is a founding trustee of the UK Charity Bees Abroad. Adrian is a former county beekeeping instructor for Northamptonshire and holds the National diploma in Beekeeping.

As Bill Turnbull writes in his foreword

"Claire and Adrian know what they are talking about . . . part of the beekeeper's lot is learning to live with setbacks, but with this book Claire and Adrian are at your shoulder so you are in good company."

Are Our Bees Talking to Us?

HONEYBEE hives across Scotland have been fitted with sound-monitoring computers to test a theory the insects have an entire language previously unknown to humans.

Researchers believe the insects may make different noises when they are plagued by disease, have lost their queen or are being poisoned by pesticides.

If scientists can learn to interpret the sounds it could help stop mass declines of the crucial pollinators across the globe, scientists believe.

In a £2 million research project, sound monitors have been installed in about 100 hives across Scotland to pick up the sounds made by the honeybees.

Dr Chris Connolly, a neuroscientist at the University of Dundee, who is leading the study said that if the theory was correct the noises could act as an early-warning signal that the hive was in trouble. Already, he said, there is some indication that the bees make a roaring noise when they have lost their queen and they become very noisy at night when they are infected by Nosema which causes dysentry and can, if unchcecked, cause colony collapse.

"They make a whole range of frequencies of noise," Dr Connolly said. *"What do these sounds mean? Do they have words or phrases to indicate they have got an infection, or they are hungry, or haven't got a queen? The idea is to record the sounds from lots of different bees and if it transpires that all the bees are making a certain type of noise when they have, say, nosema infections, that would be very interesting. Whether this is just bee noise we don't know. It may be that there's a language there. It's very early days but there is some suggestion that it might be possible to identify when a colony is hungry, or about to swarm, or hasn't got a queen. Bear in mind that this is a social community of 50,000 to 60,000 bees. We want to see if certain noises are indicators of certain conditions."*

The research project has implications far beyond scientific interest. Honeybees are important pollinators of food crops, with a value to the UK economy estimated at more than £250m a year.

Approximately twenty four beekeepers are thus far involved in the research, each with three or four hives being monitored in this the first study of its kind. The monitors, which resemble small mobile phones, are placed at the entrances of the hives and transmit the information to a central computer. The research will be carried out over the next four years, during which time Dr Connolly is hoping to expand the project to hundreds more hives.

"Whether or not it provides information that will help save bees I don't know, but there's so much not known about bees and there are so few animals that have such intricate social populations," he added.

The study, funded by the UK Pollinators Initiative, also involves researchers from Ninewells Hospital, Newcastle University, University College London and University of London.

Nigel Southworth, editor of the SBA Scottish Beekeeper magazine, said: *"This really is an extremely exciting project with Scottish beekeepers at the forefront of not only assisting the research but actively working in the field to monitor the health of Scotland's honey bees."*

Enid Brown, a beekeeper from Scotland wellnear Kinross, who is taking part in the research and has kept bees for 17 years, believes they do have their own language.

She said: *"You can tell whether a hive is happy or not, or whether they are making an angry noise. The tone definitely changes. If this research is going to help the bees then it's definitely worth taking part."*

Bees are already known to communicate with each other using a dance known as the expedition they return to the hive and use the dance to indicate whether the food is nearby or far away. However, experts warn the insects are in crisis across the world although the reasons are still not entirely understood.

Much of the decline in bee numbers is taking place in the industrialised northern hemisphere. Theories include damage being caused by a parasite, called the varroa mite, pesticides poisoning the bees, lack of food sources causing them to starve and even radiation from mobile phone masts. The UK decline has continued this year with honey bee populations falling in some areas by up to 17 per cent over the winter, according to a survey of beekeepers. The keepers are puzzled because the cold winter and early spring should have favoured bees. Dr Connolly says he first began thinking about the biology of bee brains as a result of reading the book, 'A World Without Bees' by Alison Benjamin and Brian McCallum. He told Chrissie Giles of the Wellcome Trust blog:

"On Christmas Day 2008, my mother-in-law gave me 'A World Without Bees', a book that describes the decline of the honeybee. As a neurobiologist reading, it struck me that many of the symptoms of colony collapse disorder were consistent with some kind of brain disorder. I was thinking about pesticides and reali sed that so-called sub-lethal doses (which don't kill pests) may affect how bees behave. I decided that this is more or less the kind of thing we've been doing on mammalian brain cells, so if we could apply this to the bee brain, we could find out if these chemicals have sub-lethal effects at the level of individual cells, neural networks (circuits of nerve cells), whole animals or entire colonies. So, I had the idea, but thought that it might be hard to get funding because I didn't work in the field. I applied as an individual to the Cooperative's Plan Bee, which funds research into the decline of the honeybee, but was unsuccessful. But something wasn't letting me drop the idea, as then I heard about the Insect Pollinators Initiative and the £10 million offunding it was making available. This got me thinking about forming a larger, multidisciplinary team. I researched the science in more detail on PubMed, the online library of scientific papers, and thought about how I'd assemble a team. Although I knew many neurobiologists who could help me with the cellular and molecular aspects of the project, I had no experience working with bees. I called up Professor Pat Wilmer, a pollination biologist at St Andrews, for some help. She put me in touch with expert neuroscientists who are using bees as models to investigate mechanisms of learning and memory. This was a fantastic advance in assembling a world-class team. We applied, and heard our proposal was one of nine chosen to be funded. Serendipitously, the proposed work on bee receptors overlapped with my work on human receptors.

In bee research, there is lack of stable cell lines (different types of bee cells to grow and use in the lab), as, unlike human cell lines, these are very hard to make. Particularly tricky are insect cells studded with nicotinic acetylcholine receptors, found in the nervous systems of vertebrates and invertebrates alike. Fortuitously, in a separate project, I've been working with Professor Neil Millar, a neuropharmacologist at University College London, on a chaperone protein that helps cells produce these receptors. He's a partner on our pollinator project, and we will attempt to create the first ever honeybee cell line for pesticide screening.Since getting the funding, I've given talks to many organisations and conferences, including CropWorld, the Association of Independent Crop Consultants and both the Scottish and British Beekeepers' Associations – quite a different circuit to what I'm used to. In what private time I have, I'm interested in wildlife, nature and the environment. As a professional, I'm interested in the medical implications of dysfunctional neuronal communication. Reading the book on bees started bells ringing in my head as I realised that I could join up my interests in one project. My mother-in- law is very excited too, especially as this is all thanks to her. Of course, now I find it impossible to get that work-life balance – just as I like it."

On the project, Dr Connelly is working with Dr Jenni Harvey *University of Dundee*, Dr Nigel Raine *Royal Holloway, University of London*, Dr Geraldine Wright *Newcastle University* and Professor Neil Millar *UCL*.

New honey bee sub species found in China

A new apis sub species has been reported from Hunan Province in the south west of China.
Doctor Won Hung Lo from the Chi-nese Third World Institute of Terrestrial Science and Professor Prapsil Noko-bolokov from the Russian Federation Of Organic Land Sciences have discovered a sub species of Apis mellifera, they have named Apis Mellifera sinensis.
The dark-bodied bee is about one third larger than Apis Mellifera mellifera and lives at a higher altitude.

Horizontal comb

Unusually, its honey storage combs lie horizontally rather than vertically and the bee has feet adapted with a small plate behind the hook that terminates most bees' feet. This spreads the weight of the bee when it walks across the tops of the combs and prevents it sinking into the honey filled horizontal combs.
Research is being undertaken to see if it is possible to replace the horizontal comb with jars so that the bees can fill them directly, thus avoiding the need for extraction.

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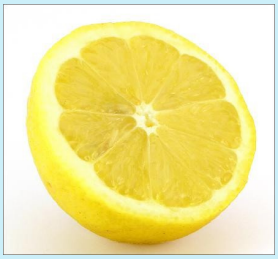
Warm way or cold way? - Ask the bees!

—Warm way or Cold Way?ll is one of the first questions we have to address when we set up a hive (warm way is with the combs parallel to the entrance, cold way is with them at right angles to it, running front to back). Well, what do the bees say?
Firstly, you'll find that every wild colony draws its combs —cold wayll unless there is some very good reason why not. I don't know why, they just do.
Secondly, put your combs in —warm wayll and not only will they draw patches in the centres, they are (in my experience) more likely to draw brace-comb between the combs.
So how does a feral colony develop its combs?
They start with a single comb in the centre, top of the space and grow it to about the size of your hand.
Then they start two small combs one bee-space either side of the first. When the centre comb has reached about 8ll deep or is limited by the height of the space they are in, the combs will be spaced over a lateral distance.

New Anti-theft device?

And the answer is … a lemon?



Researchers have been evaluating the effectiveness of lemon juice as a treatment for varroa.
Egyptian agricultural researchers M.F. Abdel-Rahman and S.H. Rateb mixed pure lemon juice with 1:1 (weight/volume) sugar syrup in concentrations of 10%, 25%, 50%, 75% and 100% and the solution was applied at the rate of 5ml per seam of bees. Colonies were treated 5 times at 6 day intervals. The suc-cess rates were 32.5%, 40.5%, 82.9%, 84.4% and 86.6% respectively.
Polish beekeeper Dominik Ptak reported that he had tried the method in Poland and reported achieving a 90.5% control with a single application. He says that the mixture must be lukewarm and freshly made; as with oxalic drip treatment the colonies should have little brood. So this is a November/December treatment.
For more information and discussion, go to:
www.buzzaboutbees.net/support-files/lemon-juice-to-counteract-varroa.pdf

A Volumetric Approach to Swarm Control

A single National brood chamber with 11 deep frames presents approximately 55,000 cells at 25 per square inch. We are told repeatedly that 55,000 or more is the number of adult bees which must be accommodated at the peak in July. As an adult worker measures 1/2"x 1/4" x 1/4", each requires 1/8 sq in of standing room i.e. no more than 8 per sq in, or about 1/3 the number of cells per sq in.

It follows that if the brood box is 9" deep and full of brood, an overall height of 27" is required for an equivalent number of adult bees. This height can be achieved by adding 3 supers (6"), but these make no provision for the adult bees to move around overnight when the foragers are back home. Hence, four is probably a better estimate of the number of supers required by mid-summer simply to accommodate the adult bees in reasonable comfort, regardless of the amount of nectar/honey to be stored.

Since overcrowding is cited as one of the factors involved in swarming, adding supers simply to provide space for the workers is recommended. This provision requires a greater investment in shallow supers than is necessary for the amount of surplus in a normal season but allows for say 120lbs of surplus in bonanza years when swarming is most likely to occur. On balance it is better to be faced with the need to extract part-filled supers in normal years than to be left with empty supers because a swarm has absconded.

I am not suggesting that the above is sufficient in itself to prevent swarms but it does allow for part of one's anti-swarming measures to be quantified.

To continue, readers will be aware that one of the perennial topics in beekeeping is whether or not the BS National brood box is big enough. As noted above it contains circa 55,000 individual cells. The text books tell us that a young queen lays 2,000 eggs daily while the colony is expanding in Spring. That being so 42,000 cells are required for each cycle of worker brood, leaving 13,000 cells (the equivalent of 2.6 frames or 24% of the total) for drone brood, pollen and nectar/honey. My experience tells me that a quarter of each frame is amply sufficient overall for drones and pollen, and if space in the brood chamber becomes limiting the bees will put any excess of honey "upstairs" where I preferred it to be to maximise the eventual surplus.

I personally think the National BC is big enough unless one is working with prolific queens bred in warmer climes. My preference was always for locally bred queens derived from strains adapted to the area, and whose thriftiness was an important characteristic for their survival in poor summers and/or harsh winters.

The twin parameters a) that the queen lays 2,000 eggs per day and b) that a fully developed colony comprises 60,000 adults, are embedded in beekeeping folklore, but I do not know the basis for them. Can anyone give references to the original studies on which they are based? If they should turn out to be not well founded, not only might this article have to be reconsidered from a fresh perspective, so too might some of our basic assumptions regarding colony dynamics.

(To continue the mathematical/theoretical approach: a brood cycle of 42,000 implies an adult population eventually of at least 84,000 which would require at least 7 supers + single brood box (working on usually accepted figures) to contain them—just to contain them, nothing else. In practice, it seems quite clear to me that these theoretical rates of egg-laying are never kept up for a great length of time, but represent a maximum peak, usually in May. Ed.)

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Paul Quigley's bee suit

Quigley has made up a medieval bee-suit, asdepicted in the famousdrawing by Bruegel below.

Paul wore the suit at TattonPark Flower Show, but feltthat it frightened thechildren! The face-mask ismade of basket-weave—literally like the bottom of abasket, and you **can** seethrough it—although notvery well!The sleeves in the drawing (and in Paul's suit) appear tobe quite baggy, no gloves appear to have been worn, andthe gown is completely open at the bottom, so therewould still have been ample opportunity for the bees to make their annoyance felt, if the beekeeper were not

The Honeypot Ant

HONEYPOT ants have an unusual food storage system. Some members of each colony act as living receptacles known as 'repletes', these ants become engorged with food from the workers and hang from the ceilings of chambers deep underground to the point that their abdomens swell enormously, a condition called plerergate. Other ants then extract nourishment from them. They function essentially as living larders.

Honeypot ants belong to any of five genera, including Myrmecocystus. Honey ants are unique in using their own bodies as storage, but they have a greater function than just storing food. Some store liquids, body fat, and water from insect prey brought to them by worker ants. They can later serve as a food source for their fellow ants when food is scarce. In certain places, they are eaten by humans as sweets and are considered a delicacy.

These ants can live anywhere in the nest, but in the wild, they are found deep underground, literally imprisoned by their huge abdomens, swollen tothe size of grapes. They are so valued in times of little food and water that occasionally raiders from other colonies, knowing of these living storehouses, will attempt to steal these ants because of their high nutritional value and water content.

They are known to change colours, commonly green, red, orange, yellow, and blue. Like all formicine ants, honey ants lack stingers so they spray fine droplets of formic acid from their abdominal tip.

Himalayan Balsam

Himalayan Balsam is a plant that has caused more controversy and argument between beekeepers and conservationist than any other. The Environment Agency regards it as similar to Japanese Knotweed and Ragwort so it should be eradicated. Conservation bodies such the Wildlife Trusts organise working parties to pull out and get rid of this invasive weed. Some of you, including me, may be members of these same conservation organisations. As a conservationist, I support eradicating non-indigenous plant species, including Himalayan Balsam, but honeybees really love it. Himalayan Balsam is a native of the Western Himalayas with the colloquial name of "Kiss me on the Mountain". The pink hooded flowers have the appearance of a policeman's helmet. It was introduced to Kew in 1839 as a greenhouse plant; from there it escaped into the wild. It is now naturalised in the British Isles and many other countries. It spreads along river banks and its dense growth suffocates indigenous plant species, plants that birds and small mammals rely on. It chokes water courses so causing flooding and when it dies back, it leaves bare patches along river banks causing soil erosion. Its spread rate in the UK has been estimated at 645 km2 per year and an extensive stand of Himalayan Balsam may reduce species richness by 25%. Its high nectar yield attracts pollinating insects in preference to native plants. Black spherical seeds germinate around February/March and the plant grows very quickly, reaching a height of two metres or more. It flowers from July until the first frost. During the autumn, seedpods start to form; when ripe and disturbed, these explode releasing the seeds. Medium sized plants produce on average 700 to 800 seeds which can be ejected seven metres. The flowers produce 47% more nectar than any other native plant so are a major attraction for honeybees and other pollinating insects. In some areas the honey flow season can be extended up to two months to the end of September. A reasonable colony of bees can easily fill two supers.

Himalayan Balsam is an invasive weed. It is an offence under the Wildlife and Countryside Act Schedule 9 deliberately to propagate or encourage it. Yet our bees pollinate it so ensuring fertile seeds for the next year. Moving hives into an area where there is much Himalayan Balsam could be flouting the law. However, proving such a case would be difficult, especially if the beekeeper habitually moved his colonies into a certain apiary every year to over-winter Both fortunately and unfortunately, Himalayan Balsam is here to stay. Totally eradicating it is unlikely - like the grey squirrel, it cannot be done. However, the honey is just great!

Rosebay Willowherb.

Epilobiumn angustifolium, the Rosebay Willowherb, is one of the best wild bee plants in Britain and regularly provides a considerable yield of nectar and pollen for beekeepers who have the plant in their locality. It is capable of growing in extensive stands along roadsides, on typical Devon banks which lie beside many lanes in the county, by hedges, in heath and woodland where felling and burning has taken place. and even on the edges surrounding rubbish tips. It was once known as the 'cursed fireweed' as it appeared where fires had recently taken place, even on bombed sites in the city of London during the 1939-45 conflict, when it was one of the first plants to appear after the devastation. Its tall spikes of magenta flowers appear from July to September when they are seen at their most conspicuous against other foliage. The first flowers open at the bottom of the tall flowering spike or other secondary flowering shoots growing from the main stem. By the time the flowers at the top are ready to bloom, seedpods will have formed on the bottom flowers, thus the plant can be a source of nectar and pollen over an extended period. The seeds are extremely light and may be borne by the wind over considerable distances. The plants' creeping underground stems are capable of travelling ten metres or more throwing out shoots as they grow, thus making attractive stands for the bees to visit as they forage for stores. The honey resulting from E angustifolium is very pale in colour, but has high sugar content, providing the bees with an excellent reward for their services. It blends well with other wild flowers to make a very acceptable wildflower honey, which eventually produces a fine-grained product. Bees returning to the hive after working Rosebay Willowherb can he easily identified by the distinctive blue pollen loads they are carrying in their corbiculae. For those beekeepers using a microscope to identify the pollen loads, the grains from this species are usually bound together by threads of viscin, which are clearly identifiable. There are other wild species of Epilobium that attract bees, but they are not usually sufficiently common to attract the bees with perhaps the exception of one, *E hirsutum,* the Hairy (or Great) willowherb. This species appears to be appearing at an increasing number of sites in Devon, frequently by streams, along bankings and in hedge bottoms, although it does not challenge the supremacy of its more commonly found relative.

From British Bee Journal 1 June 1881, with the Prize Schedule

CALEDONIAN APIARIAN SOCIETY.

INSTITUTED 28th OCTOBER, 1874.

Hon. President . . . THE RIGHT HON. THE EARL OF ROSEBERY.

The Society will hold its EIGHTH ANNUAL SHOW of BEES, HIVES, and HONEY, at Stirling, in connexion with the Highland and Agricultural Society of Scotland's Show, on the 26th, 27th, 28th, and 29th of July.

The following is the PRIZE SCHEDULE:—

BEES.

Note.—No article, on any condition, will be allowed to be removed from the Class during the Show, but a separate space will be allotted for the exhibition and sale of Bee-keepers' Appliances.

1 For the best Hive for observation purposes, all Combs to be visible on both sides, stocked with Bees and their Queen ... ... Highland and Agricultural Society's Silver Medal. Silver Medal. Bronze Medal.

*2 For the best Stock of Cyprian, Ligurian, or any other Foreign Bees ... ... Silver Medal.† Bronze Medal.

* The Bees to be exhibited living with their Queen in Observatory Hives. All combs to be visible on both sides.

† This Prize is given by the British Bee-keepers' Association.

HIVES.

All Hives to be fitted with Guides ready for use.

3 For the best Bar-frame Hive on the Moveable Comb principle, with Cover and Stand complete, stocked with Bees and their Queen, showing Super arrangements in full operation, or Duplicate Hive ... ... Silver Medal. Bronze Medal. Certificate.

Note.—Exhibitors in Classes 4, 6, and 8, must prefix a Note stating the points these Exhibits possess.

4 For the best Moveable Comb Hive. This Hive must be exhibited in duplicate, firstly for Summer use, with facilities for harvesting Honey; secondly, with arrangements for Wintering. Silver Medal. Bronze Medal. Certificate.

5 For the best and most perfect Bar-frame Hive, with Super, or set of Sectional Supers, and Cover complete ... ... Silver Medal. Bronze Medal. Small Bronze Medal.

*6 For the best Frame Hive for general use—the work of an Amateur or Cottager. Silver Medal. Bronze Medal. Certificate.

*7 For the Four best New Inventions or Improvements in Hives ... ... Silver Medal. Bronze Medal. Certificate.

Carpenters and Hive-dealers are not allowed to compete in this Class.

* Duplicate Hives may be exhibited for the purposes of explanation, without any Entrance Fee being charged. In Class 7, the Judges shall exercise their discretion as to whether a less number than Four are of sufficient merit to warrant a Prize.

8 For the best Straw Hive of any description 5/0 2/6

COMB FOUNDATION.

9 For the best sample of Comb Foundation made of pure bees' wax, to consist of 5 lbs. thick (Worker Cells) for Stock Hive, and 5 lbs. thin, for Supers, manufactured in the United Kingdom, with price per pound attached at which the Exhibitor is willing to supply any quantity ... Silver Medal. 5/0 2/6

10 For the best two Samples of Wax, in cakes of not less than 1 lb. each 7/6 5/0 2/6

HONEY.

Quality to be taken into consideration.

11	For the best Two Supers, above 20 lbs. each	20/0	10/0	5/0
12	For the best Super above 20 lbs.	15/0	10/0	5/0
13	For the best Super above 10 lbs. and under 20 lbs.	10/0	5/0	2/6
14	For the best Exhibition of Super Honey from one Apiary	15/0	10/0	5/0
15	For the best Super of Honey, not being Sectional Supers. The Super to be of wood, straw, or of wood in combination with glass or straw	7/6	—	—
16	For the best Glass Super of Honey	12/6	7/6	5/0
17	For the best Twenty-four 2-lb. Sections of Comb Honey	10/0	5/0	—
18	For the best Twenty-four 1-lb. Sections of Comb Honey	10/0	5/0	—
19	For the best Twelve 2-lb. Sections of Comb Honey	10/0	5/0	—
20	For the best Twelve 1-lb. Sections of Comb Honey	10/0	5/0	—
21	For the best Exhibition of Run or Extracted Honey, in twenty-four 2-lb. glass jars	7/6	5/0	—
22	For the best Exhibition of Run or Extracted Honey, in twenty-four 1-lb. glass jars	7/6	5/0	—

COMESTIBLES.

23 For the best Liqueur or Wine made from Honey, with recipe attached (not less than two quarts); age of Wine to be given ... ... Silver Medal. Bronze Medal. Certificate.

24 For the best Mead or Beer made from Honey, with recipe attached (not less than two quarts) Small Silver Medal. Small Bronze Medal. Certificate.

25 For the best Cakes made with Honey, with recipe attached (not less than 2 lbs.) Silver Medal. Bronze Medal. Certificate.

The Samples to which 1st Prize is awarded, in Classes 23, 24, and 25, shall become the property of the Society, to be used at the Judges' Dinner.

D.D.T **d**ichloro**d**iphenyl**t**richloroethane

Extract from the May 1946 edition of BEECRAFT

In view of the wide publicity which has been give to DDT and its toxic effect on bees, the statements made in our information pamphlets about our Ditrene products will no doubt be of interest to you, but in general we state that DDT can be used on orchards with safety, providing precautions are taken in the same way as they are with lead arsenate, i.e. spraying well before the blossoming period of three weeks to a month, and avoid spraying when there are flowers or weeds in flower, underneath the fruit trees at the time of spraying. In other words, if dandelion or daisies are in bloom at green bud stage when DDT preparations would normally be applied against weevil, an after spraying or hosing of the ground with water would be a help or preferably the grass and flowers should be mown a day or two before spraying. – MESSRS. TECHNICAL PRODUCTS LTD January 17th 1946.

Extract from Wikipedia

In 1962, *Silent Spring* by American biologist Rachel Carson was published. The book catalogued the environmental impacts of the indiscriminate spraying of DDT in the US and questioned the logic of releasing large amounts of chemicals into the environment without fully understanding their effects on ecology or human health. The book suggested that DDT and other pesticides may cause cancer and that their agricultural use was a threat to wildlife, particularly birds. Its publication was one of the signature events in the birth of the environmental movement, and resulted in a large public outcry that eventually led to DDT being banned in the US in 1972.

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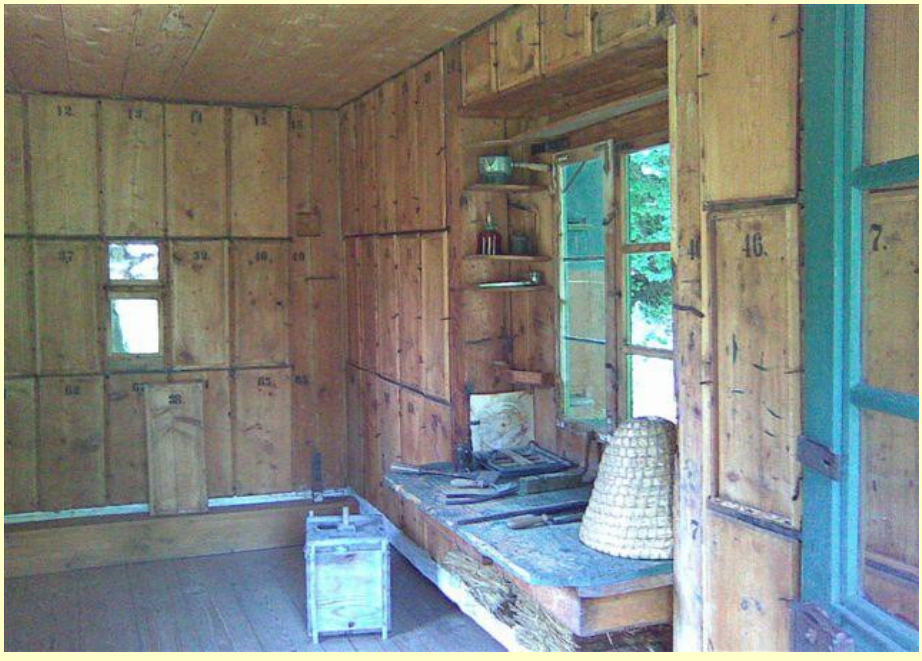
Grand Garden Shed

And Inside.



BEE KEEPERS' QUARTERLY.

The Bee Keepers' Quarterly published by Northern Bee Books is a somewhat weightier magazine that BeeCraft.
It carries articles on research; articles from bee keepers from around the world, (the editor lives and keeps bees in Messinias in Greece); articles on bee health; bee keeping development; the bee keeping season and much more besides.
Recent features have included colony losses; making a 'Langstroth' top bar hive; overwintering; new technology; Travellers' Tales and articles 'for the workshop', and there always a number of book reviews.
The normal cost is £28.00 pa, but through the Association it is just £18.00pa.
It needs a minimum of six subscribers for us to take advantage of the offer and John McKee, our Treasurer has kindly offered to facilitate it on our behalf.
So, send a cheque to John McKee at 27 Egmont Drive, Avon Castle, Ringwood. BH24 2BN along with the address to which you would like the magazine delivered and BKQ will wing its way to your door every three months.
Those who join and are already paying full subscription will a refund on their unused existing full price sub.
£18.00 per year is only 34 pence per week and the magazine is well worth it.
If anyone would like to read a few back copies to see what it is like, you can contact me through the web site or at BADS-BKA@gmail.com.

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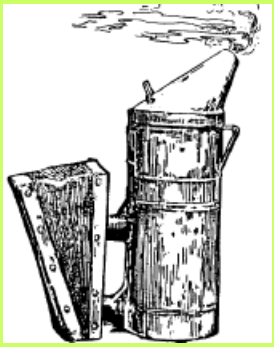
How to Light a Smoker

1. Split dead wood into fragments and cut into shavings using a sharp knife.
2. Bandage left thumb.
3. Load shavings into bottom of smoker – include those embedded in hand.
4. Light match.
5. Light another match.

6. Repeat —This is fun‖ as you light yet another match.
7. Apply match to shavings.
8. Put out burning glove and box of matches.
9. Blow gently into base with bellows.
10. Apply burn ointment to nose.
11. When shavings are alight add more.
12. When you have stopped coughing, go on to next stage.
13. Discovering that smoker has gone out whilst you were coughing, soak shav-ings from can labelled —Paraffin‖.
14. Treat arms and face for second degree burns.
15. Re-label can —Petrol‖.
16. When smoker is burning well, add re-maining shavings.
17. When thunderstorm has passed, repeat all the above steps.



PLEASE SUPPORT THE FOLLOWING.

NORTHERN BEE BOOKS

OVER THE PAST TWENTY YEARS OR SO WE BEEKEEPERS HAVE HAD TREMENDOUS SUPPORT FROM NORTHERN BEE BOOKS. WE WOULD LIKE TO THANK THEM BY PUBLICISING THEIR WEBSITE WWW.BEEDATA.COM

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PHONE 01422 882751
BY THE WAY, THEIR CONCESSIONARY RATE
www.beedata.com/beebooks.htm

UK Honey Labelling Regulations

Below is our simple advice on honey labelling. For more detailed information - go to the website of the Food Standards Agency. www.food.gov.uk

1. The Word "HONEY" is required.

2. The weight must be on the label - we will ensure it is the legal size and format.

3. You can specify the area where the honey is produced. For example, Lincolnshire, Forest of Dean, Scottish Borders.

4. You can specify the type of honey. For example, Heather, Borage. The honey must be at least 75% of that particular type.

5. If you are selling the honey, you must have your name and address on the label. It does not need to be complete but you should be able to be found from the information.

6. If you are selling the honey through a third party, you must have a lot number.

7. New for 2003 You must have a best before date on the jar. We suggest 2-5 years from now.

8. New for 2003 You must have a country of origin on the jar. For example - Produce of England, Product of Scotland, Harvested in Wales. Adding the country to the end of your address is not acceptable.

E H Thorne (Beehives) Ltd disclaims all responsibility for all consequences of any person acting on, or refraining from acting in reliance on, information contained above.

From EH Thorne's online catalogue 2010 - other sources are available